REMARKS

This communication is in response to the Office Action dated February 4, 2008 in which claims 1-9, 11-36, and 38 were pending. With the present response, claims 1-3, 5, 6, 9, 11-22, 25-27 and 34 are amended. Claims 4, 7, 8, 10, 23, 24, 30, 33 and 37 are cancelled. The remaining claims are unchanged. Reconsideration and allowance of all claims in their present condition are respectfully solicited in light of the following comments.

Claim Rejections – 35 U.S.C. § 101

Claims 1-9 and 11-26 were rejected under 35 U.S.C. §101 for allegedly reciting non-statutory subject matter. With the present response, Applicant has amended independent claims 1 and 22, as well as their associated dependent claims, such that the claims now recite a computer readable storage medium. The Examiner is respectfully requested to review Applicant's specification at page 6. At this point, Applicant draws a distinction between storage media and communication media. The Examiner will see that the definition of storage media does not include intangible items such as a carrier wave. Accordingly, it is respectfully submitted that the amendments make the first §101 issue noted by the Examiner obsolete. Reconsideration and withdrawal of that portion of the §101 rejection are respectfully solicited.

Beginning on the bottom of page 3 of the Office Action, the Examiner re-asserted a previous rejection under §101 related to the so-called final result achieved by claimed inventions. In response, Applicant wishes to communicate agreement that classification of a web page is a real world practical application for which claimed inventions can be used. Accordingly, Applicant respectfully requests that the second portion of the rejection under §101 be again withdrawn. Applicant appreciates the Examiner's patience in resolving this issue.

Claim Rejections – 35 U.S.C. § 102

Claims 1-8, 11-12, 18-20, 22-36, and 38 were rejected under 35 U.S.C. 102(b) as being anticipated by Masuichi ("A Bootstrapping Method for Extracting Bilingual Text Pairs"). Of these claims, claims 1, 22, 27, and 36 are independent claims.

With the present response, Applicant has essentially relocated the elements of dependent claims 4, 7 and 8 into the associated independent claim 1. Claims 4, 7 and 8 have been cancelled to accommodate these changes. Accordingly, independent claim 1 now further defines the claimed step of selecting instances uncertain to the first classifier. In particular, claim 1 limits this selection to selecting instances of unlabeled data "as a function of uncertainty." The claim goes even further and limits the selecting as a function of uncertainty to including a calculation of a value of uncertainty "used to select the instances uncertain to the first classifier." Then, the claim goes still further and limits the claimed selection to a process that includes selecting instances having "a value of uncertainty that is compared to a predetermined threshold."

This concept of comparing a value of uncertainty to a predetermined threshold was originally included in dependent claim 8. On page 8 of the Office Action, the Examiner rejected claim 8 and pointed to the Masuichi reference at column 1, on page 1068. The Examiner argued that the claimed "predetermined threshold" is equivalent to the "10 most reliable mutual proximity pairs" described in the cited reference. It is respectfully pointed out that the most reliable proximity pairs are in no way the same thing as a predetermined threshold applied to a value of uncertainty. As is made clear in the Applicant's claim 1, the claimed process of applying a threshold enables a selection of instances uncertain to the first classifier. The description in the reference of a selection of reliable mutual proximity pairs in no way performs such the claimed function. For at least this reason, it is respectfully submitted that independent claim 1 is in allowable form.

With the present response, independent claim 22 has been amended such that it now essentially includes the elements of former dependent claims 23 and 24. Claims 23 and 24 have been cancelled accordingly. Independent claim 22, as amended, recites creating an "augmented set" that includes first and second labeled sets. As claimed, the first labeled set is generated using the first classifier and the second labeled set is generated using the second classifier. Still further, as claimed, the first and second classifiers are reconstructed using the augmented set.

The claimed reconstruction of the first and second classifiers was originally claimed in Applicant's dependent claim 24. On page 12 of the Office Action, the Examiner rejected claim 24 arguing that the cited Masuichi reference teaches reconstruction on page 1068. The Examiner essentially argues that increasing the number of English-Japanese pairs is the same thing as the claimed reconstruction step. It is respectfully pointed out that the additions to the English-Japanese pairs described in the cited reference is in no way equivalent to reconstructing a classifier using an augmented set as claimed. In no way does the cited reference teach or suggest using separate classifiers to label data in order to form an augmented set as claimed. The cited reference certainly does not teach or suggest generating such an augmented set and then using it to reconstruct the classifiers. For at least these reasons, it is respectfully submitted that independent claim 22 is in allowable form.

With the present response, independent claim 27 has been amended such that it now essentially includes the elements of former dependent claims 30 and 33. Claims 30 and 33 have been cancelled to support these changes. Claim 27, as amended, recites generation of first and second labeled sets. As claimed, the first label set is generated by applying the first classifier to the first unlabeled set. Similarly, the second labeled set is claimed as being generated by applying the second classifier to the second labeled set. The claim then goes on to further define applying the first classifier to the first unlabeled set as including a calculation of probabilities that the first classifier is unable to assign some unlabeled data to classes.

The element now included in claim 27 of calculating probabilities that the first classifier is unable to assign some unlabeled data to classes was originally included in dependent claim 33. On page 16 of the Office Action, the Examiner rejected claim 33 in light of the Masuichi reference on page 1067. The Examiner argues that the claimed calculation of probabilities is equivalent to a determination in the Masuichi reference of the cosine of the angle between two vectors. It is respectfully pointed out that the cosines determined in the Masuichi reference have absolutely nothing to do with the probability of assigning classes. For at least this reason, it is respectfully submitted that claim 27 is in allowable form.

Independent claim 36 is similar to independent claim 32 in that it includes a step of reconstructing a classifier utilizing a labeled set that is generated by labeling (i.e., assigning classes) unlabeled instances of data. Claim 36 is even narrower in that the labeling is limited to selected portions that are uncertain for a particular related classifier. For at least the same reasons discussed above in relation to the other independent claims, it is respectfully submitted that claim 36 is in allowable form. Reconsideration and allowance of claim 36 are respectfully solicited.

For at least the reasons discussed above, it is respectfully submitted that independent claims 1, 22, 27 and 36 are in allowable form. Further, it is respectfully submitted that the dependent claims that depend upon these independent claims are in allowable form at least based on their reliance upon what is believed to be an allowable independent claim. This is not to say that the dependent claims do not themselves recite limitations that are independently distinguishable.

Claim Rejections – 35 U.S.C. § 103

Claims 13-17 were rejected under 35 U.S.C. 103(a) as being unpatentable over Masuichi in view of Yu ("Chinese-English Bilingual Speech Recognition"). These claims are dependent upon independent claim 1 and are believed to be in allowable form at least for the same reasons discussed above in relation to that independent claim. Further, it is respectfully submitted that some or all of these dependent claims are allowable based on the merit of their own limitations. The addition of the cited Yu reference does not remedy the failure of the Masuichi reference to teach or suggest the elements of independent claim 1.

Conclusion

In view of the foregoing, Applicant submits that the present application is in condition for allowance. Reconsideration and allowance of all pending claims are respectfully requested. The Director is authorized to charge any fee deficiency required by this paper or credit any overpayment to Deposit Account No. 23-1123.

Respectfully submitted,

WESTMAN, CHAMPLIN & KELLY, P.A.

By: /Christopher L. Holt/
    Christopher L. Holt, Reg. No. 45,844
    900 Second Avenue South, Suite 1400
    Minneapolis, Minnesota 55402-3319
    Phone: (612) 334-3222 Fax: (612) 334-3312

CLH:rkp